

UNIVERSITI TEKNOLOGI MARA

**ANALYZING COURSE AFFECTING THE RESULTS OF
INFERENTIAL STATISTICS STUDENTS IN UITM SEREMBAN
CAMPUS USING ASSOCIATION RULE MINING**

DAYANG MAS RAFISHA BINTI AWANG RAFFI (2016329379)
NUR ASYIKIN BINTI MOHD MUSTAFA (2016718173)
NURSYAZA NISA BINTI SAZALI (2016340583)

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ABSTRACT

The purpose of the study was to analyze courses taken in semester 1 until semester 3 that affecting the results of Inferential Statistics. Inferential Statistics was recognized as high failure rate statistics course taken by the students of Degree in Statistics. Inferential Statistics known as a most difficult course compared to the other courses since majority the students failed for the course. Lectures of University Technology Mara (UiTM) Seremban Campus faced problems with high failure rate for this course which is more than 10% students who failed for the course in every semester. Association Rule Mining was a method adopted in this study in order to achieve the objective. The second purposes of this study was to determine the interesting rules form by the independent and dependent variables .Besides , this study interested on using data mining method to extract a meaningful information and to develop relationship among the variables stored in large data sets. An Association Rule Mining was used to graduated students from matriculation and foundation and out of 427 data generated, but only 126 dataset were employed for the purpose of this study. Results showed that 239 rules have been obtained during the process of association rule mining . After removing the redundancy , only 106 rules that are most appropriate to be associated with the objectives of this research. Moreover , this study were prepared a visualization that include grouped matrix , graph-based technique and parallel coordinates plots to make it more easier in understanding the analysis. Thus , this study focused to provide an effective mechanism for lecturers in order to improve students' performance in high failure rate statistics courses. It is important for the university administration to improve in terms of the teaching and learning method in order to produce a good result for their academic performance.

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**DAYANG MAS RAFISHA BINTI AWANG RAFFI
NUR ASYIKIN BINTI MOHD MUSTAFA
NURSYAZA NISA BINTI SAZALI**

TABLE OF CONTENTS

TOPIC	PAGE
ABSTRACT	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF APPENDICES	vii
CHAPTER 1: INTRODUCTION	
1.1 Introduction	1
1.2 Problem Statement	2
1.3 Research Objectives	3
1.4 Research Questions	3
1.5 Research Hypothesis	3
1.6 Source and limitation	4
1.7 Significance of Study	4
CHAPTER 2: LITERATURE REVIEW	
2.1 Introduction	5
2.2 History of Statistics in UiTM	5
2.3 Inferential Statistics	12
2.4 Association Rule Mining	13
2.4.1 Application of Association Rule in Education	14
CHAPTER 3: METHODOLOGY	
3.1 Introduction	16
3.2 Sources of Data	16
3.3 Definition Of Term	17
3.3.1 Grade of Inferential Statistics	17

	3.3.2 Academic Performance	17
3.4	Theoretical Framework	17
3.5	Data of Analysis	18
	3.5.1 Association Rule Mining	19
3.6	Research Flowchart	21
	3.6.1 Data Collection	22
	3.6.2 Data Cleaning and Data Processing	22
	3.6.3 Run Association Rule Mining (ARM)	23
	3.6.4 Set the Inferential Statistics (STA560) as Right Hand Side	25
	3.6.5 Remove Redundancy	27
	3.6.6 Abstract Rules	27
	3.6.7 Visualization	27
3.7	Summary of Data Analysis	28
CHAPTER 4:	RESULTS AND DISCUSSION	
	4.1 Introduction	29
	4.2 Results	29
	4.3 Descriptive Analysis	30
	4.4 Interesting Rules	34
	4.4.1 Excellent Category (A)	34
	4.4.2 Moderate Category (B+, B, B-)	36
	4.4.3 Failed Category (C-)	38
	4.5 Visualization	39
	4.5.1 Grouped Matrix	39
	4.5.2 Graph-based Techniques	44
	4.5.3 Parallel Coordinates Plots	47
	4.6 Technical Versus Theoretical	51
CHAPTER 5:	CONCLUSION AND RECOMMENDATION	
	5.1 Conclusion	53
	5.2 Recommendation	54
	REFERENCES	56
	APPENDICES	58